GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 24, 2004, 22:33:46 ; Search time 45 Seconds
(without alignments)
1801.178 Million cell updates/sec

Title: US-09-900-038A-1
Perfect score: 1590
Sequence: 1 MNYSIIMSVYNEPLNYVRDS.....LINDINILVLKLFGGEKQSD 313

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1049977 seqs, 258955339 residues

Total number of hits satisfying chosen parameters: 1049977

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
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18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1590	100.0	313	9	US-09-900-038A-1	Sequence 1, Appli
2	367	23.1	333	12	US-10-282-122A-52072	Sequence 52072, A
3	348.5	21.9	336	12	US-10-282-122A-51835	Sequence 51835, A
4	317	19.9	333	12	US-10-282-122A-52169	Sequence 52169, A
5	240.5	15.1	274	9	US-09-738-626-3905	Sequence 3905, Ap
6	237	14.9	297	9	US-09-816-028A-31	Sequence 31, Appl
7	237	14.9	297	14	US-10-303-161-31	Sequence 31, Appl
8	237	14.9	297	14	US-10-303-118-31	Sequence 31, Appl
9	237	14.9	297	14	US-10-303-128-31	Sequence 31, Appl
10	237	14.9	297	14	US-10-303-134-31	Sequence 31, Appl
11	237	14.9	297	14	US-10-303-162-31	Sequence 31, Appl
12	234	14.7	301	9	US-09-816-028A-27	Sequence 27, Appl
13	234	14.7	301	14	US-10-303-161-27	Sequence 27, Appl
14	234	14.7	301	14	US-10-303-118-27	Sequence 27, Appl
15	234	14.7	301	14	US-10-303-128-27	Sequence 27, Appl
16	234	14.7	301	14	US-10-303-134-27	Sequence 27, Appl
17	234	14.7	301	14	US-10-303-162-27	Sequence 27, Appl
18	230.5	14.5	249	12	US-10-282-122A-53337	Sequence 53337, A
19	223	14.0	210	9	US-09-767-041-47	Sequence 47, Appl
20	218	13.7	874	12	US-10-282-122A-52215	Sequence 52215, A
21	216.5	13.6	1047	12	US-10-282-122A-56851	Sequence 56851, A
22	216	13.6	706	9	US-09-815-242-4950	Sequence 4950, Ap
23	216	13.6	713	12	US-10-282-122A-42526	Sequence 42526, A
24	216	13.6	713	12	US-10-282-122A-56852	Sequence 56852, A
25	216	13.6	715	9	US-09-815-242-10511	Sequence 10511, A
26	214	13.5	269	9	US-09-767-041-41	Sequence 41, Appl
27	210.5	13.2	348	12	US-10-654-528-3	Sequence 3, Appli
28	210.5	13.2	348	12	US-10-654-528-11	Sequence 11, Appl
29	210.5	13.2	348	13	US-10-007-267-3	Sequence 3, Appli
30	210.5	13.2	348	13	US-10-007-267-11	Sequence 11, Appl
31	210.5	13.2	348	15	US-10-096-129-3	Sequence 3, Appli
32	210.5	13.2	348	15	US-10-096-129-8	Sequence 8, Appli
33	210	13.2	322	9	US-09-767-041-34	Sequence 34, Appl
34	206.5	13.0	335	12	US-10-282-122A-74482	Sequence 74482, A
35	204.5	12.9	438	12	US-10-282-122A-60207	Sequence 60207, A
36	204	12.8	421	12	US-10-282-122A-48233	Sequence 48233, A
37	202.5	12.7	317	12	US-10-282-122A-73707	Sequence 73707, A
38	200	12.6	270	9	US-09-816-028A-39	Sequence 39, Appl
39	200	12.6	270	14	US-10-303-161-39	Sequence 39, Appl
40	200	12.6	270	14	US-10-303-118-39	Sequence 39, Appl
41	200	12.6	270	14	US-10-303-128-39	Sequence 39, Appl
42	200	12.6	270	14	US-10-303-134-39	Sequence 39, Appl
43	200	12.6	270	14	US-10-303-162-39	Sequence 39, Appl
44	200	12.6	337	12	US-10-282-122A-67193	Sequence 67193, A
45	196.5	12.4	294	12	US-10-282-122A-58582	Sequence 58582, A

ALIGNMENTS

RESULT 1
US-09-900-038A-1
; Sequence 1, Application US/09900038A
; Patent No. US20020142425A1
; GENERAL INFORMATION:
; APPLICANT: Miyake, Katsuhide
; APPLICANT: Watanabe, Masaki
; APPLICANT: Iijima, Shinji
; TITLE OF INVENTION: Beta 1,3-galactosyltransferase and DNA encoding the same
; FILE REFERENCE: 766.53
; CURRENT APPLICATION NUMBER: US/09/900,038A
; CURRENT FILING DATE: 2001-09-21
; PRIOR APPLICATION NUMBER: JP 2001-392
; PRIOR FILING DATE: 2001-01-05
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 313
; TYPE: PRT
; ORGANISM: Streptococcus agalactiae Type Ib
US-09-900-038A-1

Query Match 100.0%; Score 1590; DB 9; Length 313;
Best Local Similarity 100.0%; Pred. No. 1.1e-135;
Matches 313; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MNYSIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MNYSIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRI 60

Qy         61 KILLNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLDFSATLI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KILLNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLDFSATLI 120

Qy        121 ELIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWCVKKKVFDKLMGYRDLVPVE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        181 DYDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSAILQDFYKEKSYIDIT 240

Qy        241 KITNYFQEYVIKKRYTQQELSKYFELKSTPSITIRKLYICLYLYFKSPLVRRLLINDINI 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 KITNYFQEYVIKKRYTQQELSKYFELKSTPSITIRKLYICLYLYFKSPLVRRLLINDINI 300

Qy        301 LVLKLFGGEKQSD 313
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Db        301 LVLKLFGGEKQSD 313
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RESULT 2
US-10-282-122A-52072
; Sequence 52072, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 52072
; LENGTH: 333
; TYPE: PRT
; ORGANISM: Clostridium acetobutylicum
US-10-282-122A-52072

Query Match 23.1%; Score 367; DB 12; Length 333;
Best Local Similarity 33.3%; Pred. No. 6.5e-25;
Matches 93; Conservative 62; Mismatches 92; Indels 32; Gaps 10;

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Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEEN-SLDFSATLIEL 122
                ::|| |:  |||:|::::|||||| |||||||| | | :||| |:: :  :|   | :::
Db         62 ISRENKGIVYSLNEAIRLAKGEYIARMDADDISAPKRIEKQISFLKSHRDIDILGTQVKV 121

Qy        123 IDQKGNLVYKQRESNKIYLTNDI----RKMLLNR-SILAHPTWCVKKKVFDKLMGYRDLV 177
                :   | : |::  ||: :  ||   |: :||   ||||:   :| :  :| || |
Db        122 VGNISNDI-KEKNENKLNIEFDIYDDNREKILNYWYCLAHPSVMFRKDILRELKGYNDF- 179

Qy        178 PVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSAILQDFYKEKSYI 237
              || |  :|   : |||  | : |: :|::|   :: :          |::   | |
Db        180 KSEDLDLWLRAIESGFKIYKLKEELIYFRMHEESKTRVDN----------QNYEGLKDGI 229

Qy        238 DITKITNYFQEYVIKKRY----------TQQELSKYFE 265
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RESULT 3
US-10-282-122A-51835
; Sequence 51835, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 51835
; LENGTH: 336
; TYPE: PRT
; ORGANISM: Clostridium acetobutylicum
US-10-282-122A-51835

Query Match 21.9%; Score 348.5; DB 12; Length 336;
Best Local Similarity 36.6%; Pred. No. 3.1e-23;
Matches 90; Conservative 46; Mismatches 95; Indels 15; Gaps 8;

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Qy         123 ---IDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWCVKKKVFDKLMGYR-DLVP 178
Db         125 FGDIDEKQKTIYNSAFSIK-FDSQNIEQVFLTSCAIPHPSVMFKKDSIVKLRGYRKEYDT 183

Qy         179 VEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSAILQDFYKEKSYID 238
Db         184 AEDYDLWLRAIRNGYKIVRMDECLIKYRVHNKSKTAVEMFNPKMVE------YTMKAKID 237

Qy         239 ITKITN 244
Db         238 YINDTN 243
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RESULT 4
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; Sequence 52169, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 52169
; LENGTH: 333
; TYPE: PRT
; ORGANISM: Clostridium acetobutylicum
US-10-282-122A-52169

Query Match 19.9%; Score 317; DB 12; Length 333;
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Matches 83; Conservative 53; Mismatches 91; Indels 26; Gaps 10;

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Qy          64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEEN-SLDFSATLIEL 122
Db          61 SRDNNMGMVYSLNEGIDRAKGSYVARMDADDIALPERFERQIEYLNKNKDVDILACKVEA 120

Qy         123 IDQKGNLVYKQRESNKIYLTND------IRKMLLNRSILAHPTWCVKKKVFDKLMGYR-D 175
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Qy         176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRL-NENGISQT----NKFKQYIYSAILQDF 230
Db         178 YKRTEDYNLWLRAIAKGYKIAMLEEKLMKIRLHNDSKIHRDAEGFSSIRDIIQSRL--EY 235

Qy         231 YKEK------SYI 237
Db         236 VKEKLKLKDFSYV 248
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RESULT 5
US-09-738-626-3905
; Sequence 3905, Application US/09738626
; Publication No. US20020197605A1
; GENERAL INFORMATION:
; APPLICANT: NAKAGAWA, SATOSHI
; APPLICANT: MIZOGUCHI, HIROSHI
; APPLICANT: ANDO, SEIKO
; APPLICANT: HAYASHI, MIKIRO
; APPLICANT: OCHIAI, KEIKO
; APPLICANT: YOKOI, HARUHIKO
; APPLICANT: TATEISHI, NAOKO
; APPLICANT: SENOH, AKIHIRO
; APPLICANT: IKEDA, MASATO
; APPLICANT: OZAKI, AKIO
; TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
; FILE REFERENCE: 249-125
; CURRENT APPLICATION NUMBER: US/09/738,626
; CURRENT FILING DATE: 2000-12-18
; PRIOR APPLICATION NUMBER: JP 99/377484
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: JP 00/159162
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: JP 00/280988
; PRIOR FILING DATE: 2000-08-03
; NUMBER OF SEQ ID NOS: 7059
; SOFTWARE: PatentIn ver. 3.0
; SEQ ID NO 3905
; LENGTH: 274
; TYPE: PRT
; ORGANISM: Corynebacterium glutamicum
US-09-738-626-3905

Query Match 15.1%; Score 240.5; DB 9; Length 274;
Best Local Similarity 26.2%; Pred. No. 1.4e-13;
Matches 71; Conservative 72; Mismatches 101; Indels 27; Gaps 10;

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Qy          10 YNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKILLNEENI 69
Db          17 YDE---YCSQSIKSVCEQNYENWQIVLVLDGAPIKDVPQWVKEH----ERIKIVEQKIRQ 69

Qy          70 GLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENS-LDFSATLIELIDQKGN 128
Db          70 GTPTSLNNGIKASDGQLIARLDSDDLAAPSRLSKQEEFLRNHPYIICVATKTKHINEHGK 129

Qy         129 LVYKQRESNKIYLTNDIRKMLLNRSILAHPTWCVKKKVFDKLMGYR-DLVPVEDYDFAIR 187
Db         130 IF---GQSADLPTSQDIRQILLVKNPIIHSSVMYRKQVVEQIGGYSLEMTRSQDYELFLR 186

Qy         188 ----GALADFKIGLLNKVLLQYRLNENGIS-QTNKFKQYIYSAILQDFYKEKSYIDITKI 242
Db         187 LSKIGA-----IGYLDESLSSYRIHGGQHSRKTSPFKKYTW-IILKRRMELASFLKRSPV 240

Qy         243 TNYFQEYVIKKRYTQQELSKYFELKSTPSIT 273
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Db        241 RQIFLNFI----WYGAQVTRYLGLRKAGFMT 267


RESULT 6
US-09-816-028A-31
; Sequence 31, Application US/09816028A
; Patent No. US20020042369A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/09/816,028A
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 31
;   LENGTH: 297
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-09-816-028A-31

  Query Match             14.9%;  Score 237;  DB 9;  Length 297;
  Best Local Similarity   27.8%;  Pred. No. 3.3e-13;
  Matches   85;  Conservative   61;  Mismatches  112;  Indels   48;  Gaps   14;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||    |:  ::|| :|||  : | |||:|:         : ||:  |:||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKNIE-IIVVDDCGSDKSIDIVKEYAKKDDRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLD---FSATLI 120
               ||||: |  :  : ||::   ||  :| ||     :  :: :: :: | :|   |:| ::
Db         63 HNEENLKLLRARYEGVKVANSPYIMFLDPDDYLELNACEECMKILKNNEIDLLFFNAFVL 122

Qy        121 E---LIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWC--VKKKVFDKLMGYRD 175
              |    |::| |          | |:  |  | ||     |    |   :||::: | :|
Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|          : || :   ||| | |    || |     : :|:  : :|   |
Db        174 LISLE----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||     |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
              : ::||
Db        280 INIFFK 285


RESULT 7
US-10-303-161-31
; Sequence 31, Application US/10303161
; Publication No. US20030148459A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,161
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 31
;   LENGTH: 297
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-161-31

  Query Match             14.9%;  Score 237;  DB 14;  Length 297;
  Best Local Similarity   27.8%;  Pred. No. 3.3e-13;
  Matches   85;  Conservative   61;  Mismatches  112;  Indels   48;  Gaps   14;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||    |:  ::|| :|||  : | |||:|:         : ||:  |:||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKNIE-IIVVDDCGSDKSIDIVKEYAKKDDRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLD---FSATLI 120
               ||||: |  :  : ||::   ||  :| ||     :  :: :: :: | :|   |:| ::
Db         63 HNEENLKLLRARYEGVKVANSPYIMFLDPDDYLELNACEECMKILKNNEIDLLFFNAFVL 122

Qy        121 E---LIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWC--VKKKVFDKLMGYRD 175
              |    |::| |          | |:  |  | ||     |    |   :||::: | :|
Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|          : || :   ||| | |    || |     : :|:  : :|   |
Db        174 LISLE----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||     |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
              : ::||
Db        280 INIFFK 285


RESULT 8
US-10-303-118-31
; Sequence 31, Application US/10303118
; Publication No. US20030157655A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,118
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 31
;   LENGTH: 297
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-118-31
```

```
  Query Match           14.9%;  Score 237;  DB 14;  Length 297;
  Best Local Similarity  27.8%;  Pred. No. 3.3e-13;
  Matches   85;  Conservative   61;  Mismatches  112;  Indels   48;  Gaps   14;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||    |:  ::|| :|||  : | |||:|:         : ||:  |:||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKNIE-IIVVDDCGSDKSIDIVKEYAKKDDRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLD---FSATLI 120
              ||||: |  :  : ||::   ||  :| ||    :  :: :: :: | :|   |:| ::
Db         63 HNEENLKLLRARYEGVKVANSPYIMFLDPDDYLELNACEECMKILKNNEIDLLFFNAFVL 122

Qy        121 E---LIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWC--VKKKVFDKLMGYRD 175
              |    |::| |          | |:  |  | ||    |     |   :||::: | :|
Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|           : || :   ||| | |    || |     :  :|:  : :|   |
Db        174 LISLE-----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||     |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
              : ::||
Db        280 INIFFK 285


RESULT 9
US-10-303-128-31
; Sequence 31, Application US/10303128
; Publication No. US20030157656A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,128
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 31
;   LENGTH: 297
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-128-31

  Query Match           14.9%;  Score 237;  DB 14;  Length 297;
  Best Local Similarity  27.8%;  Pred. No. 3.3e-13;
  Matches   85;  Conservative   61;  Mismatches  112;  Indels   48;  Gaps   14;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||    |:  ::|| :|||  : | |||:|:         : ||:  |:||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKNIE-IIVVDDCGSDKSIDIVKEYAKKDDRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLD---FSATLI 120
              ||||: |  :  : ||::   ||  :| ||    :  :: :: :: | :|   |:| ::
Db         63 HNEENLKLLRARYEGVKVANSPYIMFLDPDDYLELNACEECMKILKNNEIDLLFFNAFVL 122

Qy        121 E---LIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWC--VKKKVFDKLMGYRD 175
              |    |::| |          | |:  |  | ||    |     |   :||::: | :|
Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|           : || :   ||| | |    || |     :  :|:  : :|   |
Db        174 LISLE-----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||     |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
              : ::||
Db        280 INIFFK 285
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Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|           : || :   ||| | |    || |     :  :|:  : :|   |
Db        174 LISLE-----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||     |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
              : ::||
Db        280 INIFFK 285


RESULT 10
US-10-303-134-31
; Sequence 31, Application US/10303134
; Publication No. US20030157657A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,134
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 31
;   LENGTH: 297
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-134-31

  Query Match           14.9%;  Score 237;  DB 14;  Length 297;
  Best Local Similarity  27.8%;  Pred. No. 3.3e-13;
  Matches   85;  Conservative   61;  Mismatches  112;  Indels   48;  Gaps   14;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||    |:  ::|| :|||  : | |||:|:         : ||:  |:||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKNIE-IIVVDDCGSDKSIDIVKEYAKKDDRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLD---FSATLI 120
              ||||: |  :  : ||::   ||  :| ||    :  :: :: :: | :|   |:| ::
Db         63 HNEENLKLLRARYEGVKVANSPYIMFLDPDDYLELNACEECMKILKNNEIDLLFFNAFVL 122

Qy        121 E---LIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWC--VKKKVFDKLMGYRD 175
              |    |::| |          | |:  |  | ||    |     |   :||::: | :|
Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|           : || :   ||| | |    || |     :  :|:  : :|   |
Db        174 LISLE-----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||     |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
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Db        280 INIFFK 285
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RESULT 11
US-10-303-162-31
; Sequence 31, Application US/10303162
; Publication No. US20030157658A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,162
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 31
;   LENGTH: 297
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-162-31

  Query Match           14.9%;  Score 237;  DB 14;  Length 297;
  Best Local Similarity   27.8%;  Pred. No. 3.3e-13;
  Matches   85;  Conservative   61;  Mismatches  112;  Indels   48;  Gaps   14;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||     |:  ::|| :|||  : | |||:|:         : ||:  |:||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKNIE-IIVVDDCGSDKSIDIVKEYAKKDDRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLD---FSATLI 120
               ||||: |  :  : ||::   ||  :| ||    :  :: :: :: | :|   |:| ::
Db         63 HNEENLKLLRARYEGVKVANSPYIMFLDPDDYLELNACEECMKILKNNEIDLLFFNAFVL 122

Qy        121 E---LIDQKGNLVYKQRESNKIYLTNDIRKMLLNRSILAHPTWC--VKKKVFDKLMGYRD 175
              |    |::| |          | |:  |  |  ||     |    :||::: | :|
Db        123 ENNNKIERKLNF------QEKCYVKKDFLKELLKTKNLFWTVWAKVIKKELYLKAVG--- 173

Qy        176 LVPVEDYDFAIRGALADFKIGLLNKVLLQYRLNENGISQT-NKFKQYIYSAILQDFYKEK 234
              |: :|           : || :   ||| | |    || |     : :|:  : :|   |
Db        174 LISLE-----------NAKINMAEDVLLYYPL--INISNTIFHLSKNLYNYQINNFSITK 220

Qy        235 SYIDITKITNYFQE-----YVIKK-------RYTQQELSKYFELKSTPSITIRKLYIC-- 280
              : : :  |    ||      |::||          |  :| :|| |    |:: ::  :|
Db        221 T-LTLQNIKTNIQEQDNVLYLLKKMQYNYNFNLTLLKLIEYFLLIEKYSLSSKRNVLCFK 279

Qy        281 LYLYFK 286
              : ::||
Db        280 INIFFK 285


RESULT 12
US-09-816-028A-27
; Sequence 27, Application US/09816028A
; Patent No. US20020042369A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/09/816,028A
;  CURRENT FILING DATE:  2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 27
;   LENGTH: 301
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3-galactosyltransferase from C. jejuni strain
;   OTHER INFORMATION: OH4384 (ORF 6a of lipooligosaccharide (LOS)
;   OTHER INFORMATION: biosynthesis locus)
US-09-816-028A-27

  Query Match           14.7%;  Score 234;  DB 9;  Length 301;
  Best Local Similarity   28.2%;  Pred. No. 6.3e-13;
  Matches   88;  Conservative   53;  Mismatches  135;  Indels   36;  Gaps   13;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||     |:  ::|| :|||  | | |||:|:     :       |||  | ||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKDIE-IIVVDDCGNDNSINIAKEYSKKDKRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLDFSATLIELI 123
               ||:|:||  :  : ||::   ||  :| ||    :  :: |: ::|   :         |
Db         63 HNEKNLGLLRARYEGVKVANSPYIMFLDPDDYLELNACEECIKILDEQD-EVDLVFFNAI 121

Qy        124 DQKGNLVYKQRESNK-IYLTNDIRKMLLNRSILAHPTW--CVKKKVFDKLMGYRDLVPVE 180
               :   : ||: : |   |    :  | :: :  |     |   ::||:: :
Db        122 VESNVISYKKFDFNSGFYSKKEFVKKIIAKKNLYWTMWGKLIRKKLYLEA---------- 171

Qy        181 DYDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSAILQDFYKEKSYIDIT 240
                ||       | || :   ||| | :    :|| |      :  | :    : | |
Db        172 ---FASLRLEKDVKINMAEDVLLYYPM----LSQAQKIA--YMNCNLYHYVPNNNSICNT 222

Qy        241 K----ITNYFQEYVIKKRYTQQE--LSKYFELKSTPSITIR-KLYICLYLYFKSPLVRRL 293
              |    : |  ||  :   | :|   |:||    |   : |:  ||| :|   :: |:  |
Db        223 KNEVLVKNNIQELQLVLNYLRQNYILNKYC---SVLYVLIKYLLYIQIYKIKRTKLMVTL 279

Qy        294 LINDINILVLKL 305
              |   |||| ||:
Db        280 LAK-INILTLKI 290


RESULT 13
US-10-303-161-27
; Sequence 27, Application US/10303161
; Publication No. US20030148459A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,161
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 27
;   LENGTH: 301
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3-galactosyltransferase from C. jejuni strain
;   OTHER INFORMATION: OH4384 (ORF 6a of lipooligosaccharide (LOS)
;   OTHER INFORMATION: biosynthesis locus)
US-10-303-161-27
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  Query Match             14.7%;  Score 234;  DB 14;  Length 301;
  Best Local Similarity   28.2%;  Pred. No. 6.3e-13;
  Matches   88;  Conservative   53;  Mismatches  135;  Indels   36;  Gaps   13;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
              |||:  ||    |:  ::|| :|||  | | |||:|:    :       |||  | ||||:
Db          5 SIILPTYNVE-QYIARAIESCINQTFKDIE-IIVVDDCGNDNSINIAKEYSKKDKRIKII 62

Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLDFSATLIELI 123
               ||:|:||  :  : ||::   ||  :| ||    :  :: |: ::|   :          |
Db         63 HNEKNLGLLRARYEGVKVANSPYIMFLDPDDYLELNACEECIKILDEQD-EVDLVFFNAI 121

Qy        124 DQKGNLVYKQRESNK-IYLTNDIRKMLLNRSILAHPTW--CVKKKVFDKLMGYRDLVPVE 180
              :   : ||: : |   |   :  | :: :  |     |   ::||:: :
Db        122 VESNVISYKKFDFNSGFYSKKEFVKKIIAKKNLYWTMWGKLIRKKLYLEA---------- 171

Qy        181 DYDFAIRGALADFKIGLLNKVLLQYRLNENGISQTNKFKQYIYSAILQDFYKEKSYIDIT 240
                ||       | ||  :   ||| | :    :|| |      :  |  :   : |  |
Db        172 ---FASLRLEKDVKINMAEDVLLYYPM----LSQAQKIA--YMNCNLYHYVPNNNSICNT 222

Qy        241 K----ITNYFQEYVIKKRYTQQE--LSKYFELKSTPSITIR-KLYICLYLYFKSPLVRRL 293
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Qy        294 LINDINILVLKL 305
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Db        280 LAK-INILTLKI 290


RESULT 14
US-10-303-118-27
; Sequence 27, Application US/10303118
; Publication No. US20030157655A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,118
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 27
;   LENGTH: 301
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3-galactosyltransferase from C. jejuni strain
;   OTHER INFORMATION: OH4384 (ORF 6a of lipooligosaccharide (LOS)
;   OTHER INFORMATION: biosynthesis locus)
US-10-303-118-27

  Query Match             14.7%;  Score 234;  DB 14;  Length 301;
  Best Local Similarity   28.2%;  Pred. No. 6.3e-13;
  Matches   88;  Conservative   53;  Mismatches  135;  Indels   36;  Gaps   13;

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Qy         64 LNEENIGLASSLNKAVKISKGEYIFRMDADDISYPSRFDKQIRFMEENSLDFSATLIELI 123
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Qy        294 LINDINILVLKL 305
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Db        280 LAK-INILTLKI 290


RESULT 15
US-10-303-128-27
; Sequence 27, Application US/10303128
; Publication No. US20030157656A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,128
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 27
;   LENGTH: 301
;   TYPE: PRT
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   OTHER INFORMATION: beta-1,3-galactosyltransferase from C. jejuni strain
;   OTHER INFORMATION: OH4384 (ORF 6a of lipooligosaccharide (LOS)
;   OTHER INFORMATION: biosynthesis locus)
US-10-303-128-27

  Query Match             14.7%;  Score 234;  DB 14;  Length 301;
  Best Local Similarity   28.2%;  Pred. No. 6.3e-13;
  Matches   88;  Conservative   53;  Mismatches  135;  Indels   36;  Gaps   13;

Qy          4 SIIMSVYNEPLNYVRDSVESILNQTLTDFEFIIVIDNPSRGDLKQFLTEYSVVDNRIKIL 63
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Qy        241 K----ITNYFQEYVIKKRYTQQE--LSKYFELKSTPSITIR-KLYICLYLYFKSPLVRRL 293
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Qy        294 LINDINILVLKL 305
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Db        280 LAK-INILTLKI 290

Search completed: March 24, 2004, 22:41:14
Job time : 46 secs
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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: March 28, 2004, 07:07:48 ; Search time 411 Seconds
(without alignments)
8505.854 Million cell updates/sec

Title: US-09-900-038A-2
Perfect score: 939
Sequence: 1 atgaattatagtatcattat.....gaggagagaaacaaagtgac 939

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2458946 seqs, 1861504846 residues

Total number of hits satisfying chosen parameters: 4917892

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA:*
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2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
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4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
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7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
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18: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	939	100.0	939	9	US-09-900-038A-2	Sequence 2, Appli
2	939	100.0	6865	9	US-09-900-038A-3	Sequence 3, Appli
3	118	12.6	1002	12	US-10-282-122A-15888	Sequence 15888, A
4	95.2	10.1	1011	12	US-10-282-122A-15651	Sequence 15651, A
5	84	8.9	1002	12	US-10-282-122A-15985	Sequence 15985, A
c 6	76.2	8.1	3673778	14	US-10-312-841-1	Sequence 1, Appli
7	73.6	7.8	1830121	14	US-10-329-960-1	Sequence 1, Appli
8	73.6	7.8	1830121	15	US-10-329-670-1	Sequence 1, Appli
9	73.2	7.8	891	9	US-09-816-028A-30	Sequence 30, Appl
10	73.2	7.8	891	14	US-10-303-161-30	Sequence 30, Appl
11	73.2	7.8	891	14	US-10-303-118-30	Sequence 30, Appl
12	73.2	7.8	891	14	US-10-303-128-30	Sequence 30, Appl
13	73.2	7.8	891	14	US-10-303-134-30	Sequence 30, Appl
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15	71.6	7.6	747	12	US-10-282-122A-17153	Sequence 17153, A
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c 17	69.8	7.4	14187	14	US-10-114-170-121	Sequence 121, App
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c 19	68.6	7.3	5371	14	US-10-311-455-2267	Sequence 2267, Ap
c 20	67	7.1	4915	9	US-09-070-927A-125	Sequence 125, App
21	64.8	6.9	906	9	US-09-816-028A-26	Sequence 26, Appl
22	64.8	6.9	906	14	US-10-303-161-26	Sequence 26, Appl
23	64.8	6.9	906	14	US-10-303-118-26	Sequence 26, Appl
24	64.8	6.9	906	14	US-10-303-128-26	Sequence 26, Appl
25	64.8	6.9	906	14	US-10-303-134-26	Sequence 26, Appl
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c 28	64.8	6.9	11474	14	US-10-303-161-1	Sequence 1, Appli
c 29	64.8	6.9	11474	14	US-10-303-118-1	Sequence 1, Appli
c 30	64.8	6.9	11474	14	US-10-303-128-1	Sequence 1, Appli
c 31	64.8	6.9	11474	14	US-10-303-134-1	Sequence 1, Appli
c 32	64.8	6.9	11474	14	US-10-303-162-1	Sequence 1, Appli
c 33	64	6.8	7597	14	US-10-311-455-986	Sequence 986, App
34	63.8	6.8	1170	9	US-09-816-028A-15	Sequence 15, Appl
35	63.8	6.8	1170	14	US-10-303-161-15	Sequence 15, Appl
36	63.8	6.8	1170	14	US-10-303-118-15	Sequence 15, Appl
37	63.8	6.8	1170	14	US-10-303-128-15	Sequence 15, Appl
38	63.8	6.8	1170	14	US-10-303-134-15	Sequence 15, Appl
39	63.8	6.8	1170	14	US-10-303-162-15	Sequence 15, Appl
40	63.8	6.8	11474	9	US-09-816-028A-1	Sequence 1, Appli
41	63.8	6.8	11474	14	US-10-303-161-1	Sequence 1, Appli
42	63.8	6.8	11474	14	US-10-303-118-1	Sequence 1, Appli
43	63.8	6.8	11474	14	US-10-303-128-1	Sequence 1, Appli
44	63.8	6.8	11474	14	US-10-303-134-1	Sequence 1, Appli
45	63.8	6.8	11474	14	US-10-303-162-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-09-900-038A-2
; Sequence 2, Application US/09900038A
; Patent No. US20020142425A1
; GENERAL INFORMATION:
; APPLICANT: Miyake, Katsuhide
; APPLICANT: Watanabe, Masaki
; APPLICANT: Iijima, Shinji
; TITLE OF INVENTION: Beta 1,3-galactosyltransferase and DNA encoding the same
; FILE REFERENCE: 766.53
; CURRENT APPLICATION NUMBER: US/09/900,038A
; CURRENT FILING DATE: 2001-09-21
; PRIOR APPLICATION NUMBER: JP 2001-392
; PRIOR FILING DATE: 2001-01-05
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 939
; TYPE: DNA
; ORGANISM: Streptococcus agalactiae Type Ib
US-09-900-038A-2

Query Match 100.0%; Score 939; DB 9; Length 939;
Best Local Similarity 100.0%; Pred. No. 3.2e-166;
Matches 939; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATA 360
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Db        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATA 360

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Qy        421 TTAACTAATGATATACGGAAGATGTTATTGAATAGATCTATACTTGCCCACCCAACGTGG 480
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Db        901 TTAGTACTGAAATTGTTTGGAGGAGAGAAACAAAGTGAC 939
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RESULT 2
US-09-900-038A-3
; Sequence 3, Application US/09900038A
; Patent No. US20020142425A1
; GENERAL INFORMATION:
;  APPLICANT: Miyake, Katsuhide
;  APPLICANT:  Watanabe, Masaki
;  APPLICANT:  Iijima, Shinji
;  TITLE OF INVENTION: Beta 1,3-galactosyltransferase and DNA encoding the same
;  FILE REFERENCE: 766.53
;  CURRENT APPLICATION NUMBER: US/09/900,038A
;  CURRENT FILING DATE:  2001-09-21
;  PRIOR APPLICATION NUMBER: JP 2001-392
;  PRIOR FILING DATE: 2001-01-05
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
;   LENGTH: 6865
;   TYPE: DNA
;   ORGANISM: Streptococcus agalactiae type Ib
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (617)..(1789)
;   NAME/KEY: CDS
;   LOCATION: (1816)..(2262)
;   NAME/KEY: CDS
;   LOCATION: (2265)..(2744)
;   NAME/KEY: CDS
;   LOCATION: (2843)..(3979)
;   NAME/KEY: CDS
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;   LOCATION: (5009)..(5947)
US-09-900-038A-3

  Query Match           100.0%;  Score 939;  DB 9;  Length 6865;
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  Matches  939;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5489 TGCGTAAAAAAGAAAGTTTTCGATAAGTTAATGGGATATAGAGATTTAGTACCTGTTGAA 5548

Qy        541 GATTATGATTTTGCAATAAGAGGAGCTCTGGCTGATTTCAAAATCGGCTTACTCAATAAA 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5549 GATTATGATTTTGCAATAAGAGGAGCTCTGGCTGATTTCAAAATCGGCTTACTCAATAAA 5608

Qy        601 GTACTTTTACAGTATAGATTAAACGAGAATGGAATATCACAAACCAATAAGTTTAAGCAA 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5609 GTACTTTTACAGTATAGATTAAACGAGAATGGAATATCACAAACCAATAAGTTTAAGCAA 5668

Qy        661 TATATTTACTCAGCTATTTTACAAGATTTTTATAAAGAAAAATCTTATATTGATATCACA 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5669 TATATTTACTCAGCTATTTTACAAGATTTTTATAAAGAAAAATCTTATATTGATATCACA 5728

Qy        721 AAAATTACTAATTACTTTCAAGAGTATGTGATAAAGAAACGCTATACTCAGCAAGAGCTC 780
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       5729 AAAATTACTAATTACTTTCAAGAGTATGTGATAAAGAAACGCTATACTCAGCAAGAGCTC 5788

Qy        781 TCTAAATATTTTGAGCTAAAATCTACCCCTAGTATTACTATTAGAAAACTATATATTTGT 840
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db       5789 TCTAAATATTTTGAGCTAAAATCTACCCCTAGTATTACTATTAGAAAACTATATATTTGT 5848
Qy        841 TTATATTTATACTTTAAGTCTCCCTTGGTTAGGAGGTTATTAATAAATGATATTAATATT 900
Db       5849 TTATATTTATACTTTAAGTCTCCCTTGGTTAGGAGGTTATTAATAAATGATATTAATATT 5908
Qy        901 TTAGTACTGAAATTGTTTGGAGGAGAGAAACAAAGTGAC 939
Db       5909 TTAGTACTGAAATTGTTTGGAGGAGAGAAACAAAGTGAC 5947
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RESULT 3
US-10-282-122A-15888
; Sequence 15888, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 15888
; LENGTH: 1002
; TYPE: DNA
; ORGANISM: Clostridium acetobutylicum
US-10-282-122A-15888

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  Query Match             12.6%;  Score 118;  DB 12;  Length 1002;
  Best Local Similarity   50.1%;  Pred. No. 1.2e-12;
  Matches  467;  Conservative    0;  Mismatches  440;  Indels   25;  Gaps    6;

Qy         13 ATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATA 72
Db         13 AGCGTTGTAATGCCAGTTTATAATAGTGAAAAATATCTGAAAGAGTCCATAGAAAGTATT 72
Qy         73 TTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGT 132
Db         73 TTAAATCAATCATACAGTGATTTGGAATTTATAATAATAAATGATGGCTC---TACAGAT 129
Qy        133 GATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTT 192
Db        130 AACTCTTTTAAAATAATTAAGGAATATGCCAAATTAGATAAAAGAATAAA---TGTGATT 186
Qy        193 AATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGA 252
Db        187 TCAAGAGAAAATAAAGGAATTGTGTACTCGTTAAATGAAGCTATACGATTGGCAAAAGGA 246
Qy        253 GAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAA 312
Db        247 GAATATATAGCAAGGATGGATGCTGATGATATTTCCGCACCCAAAAGAATAGAAAAACAA 306
Qy        313 ATTCGTTTTATGGA---GGAAAATTCATTGGATTTCTCAGCAACTCTAATAGAATTGATA 369
Db        307 ATTTCTTTTCTAAAAAGCCACAGAGATATAGATATACTGGGAACACAGGTAAAAGTGGTG 366
Qy        370 GACCAAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAA-----------TA 417
Db        367 GGCAATATTTCTAATGATATAAAAGAAAAAAATGAAAATAAGCTAAATATAGAATTGAT 426
Qy        418 TACTTAACTAATGATATACGGAAGATGTTATTGAATAGATCTATACTTGCCCCACCCAACG 477
Db        427 ATTTATGATGATAATAGAGAAAAAAATATTAAATTATTGGTATTGTTTAGCACATCCTTCA 486
Qy        478 TGGTGCGTAAAAAAGAAAGTTTTCGATAAGTTAATGGGATATAGAGATTTAGTACCTGTT 537
Db        487 GTAATGTTTAGGAAAGATATATTGAGAGAGCTAAAAGGATACAATGATTTTAAATC---A 543
Qy        538 GAAGATTATGATTTTGCAATAAGAGGAGCTCTGGCTGATTTCAAAATCGGCTTACTCAAT 597
Db        544 GAGGATTTAGATTTATGGCTAAGAGCTATAGAAAGCGGATTTAAAATATATAAGCTAAAG 603
Qy        598 AAAGTACTTTTACAGTATAGATTAAACGAGAATGGAATATCACAAACCAATAAGTTTAAG 657
Db        604 GAAGAACTTATATATTTTAGGATGCACGAGGAGTCAAAGACTAGAGTAGATAATCAAAAT 663
Qy        658 CAATATATTTACTCAGCTATTTTACAAGATTTTTATAAAGAAAAATCTTATATTGATATC 717
Db        664 TATGAAGGTTTAAAAGATGGAATAAAAATAAAATTAATAGATGTTTTTAAGAGAGAGTTC 723
Qy        718 ACAAAAATTACTAATTACTTTCAAGAGTATGTGATAAAGAAACGCTATACTCAGCAAGAG 777
Db        724 AAGAAAGACTTTAAATACATAGTATGGGGTGCAAGTAATGGAGGCAAAATTACAAAAGAG 783
Qy        778 CTCTCTAAATATTTTGAGCTAAAATCTACCCCTAGTATTACTATTAGAAAACTATATATT 837
Db        784 GTTTTAGACGAATTTTTTGAGAAATCTCAATGTATTGCATTTGTAGATAAATTTAAAACA 843
Qy        838 TGTTTATATTTATACTTTAAGTCTCC-CTTGGTTAGGAGGTTATTAATAAATGATATTAA 896
Db        844 GGTGAATTTGAAAAAATTAGAATTCTTCATCCAAAAGATATAAATCATATTAAATTTGAT 903
Qy        897 TATTTTAGTACTGAAATTGTTTGGAGGAGAGA 928
Db        904 TATGTTTTTATTGCAACTGAACCGGGAAAAGA 935
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RESULT 4
US-10-282-122A-15651
; Sequence 15651, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.

```
;  APPLICANT:  Xu, H.
;  TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
;  FILE REFERENCE: ELITRA.034A
;  CURRENT APPLICATION NUMBER: US/10/282,122A
;  CURRENT FILING DATE:  2003-02-20
;  PRIOR APPLICATION NUMBER: 60/191,078
;  PRIOR FILING DATE: 2000-03-21
;  PRIOR APPLICATION NUMBER: 60/206,848
;  PRIOR FILING DATE: 2000-05-23
;  PRIOR APPLICATION NUMBER: 60/207,727
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: 60/230,335
;  PRIOR FILING DATE: 2000-09-06
;  PRIOR APPLICATION NUMBER: 60/230,347
;  PRIOR FILING DATE: 2000-09-09
;  PRIOR APPLICATION NUMBER: 60/242,578
;  PRIOR FILING DATE: 2000-10-23
;  PRIOR APPLICATION NUMBER: 60/253,625
;  PRIOR FILING DATE: 2000-11-27
;  PRIOR APPLICATION NUMBER: 60/257,931
;  PRIOR FILING DATE: 2000-12-22
;  PRIOR APPLICATION NUMBER: 60/267,636
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: 60/269,308
;  PRIOR FILING DATE: 2001-02-16
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 78614
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 15651
;   LENGTH: 1011
;   TYPE: DNA
;   ORGANISM: Clostridium acetobutylicum
US-10-282-122A-15651

  Query Match             10.1%;  Score 95.2;  DB 12;  Length 1011;
  Best Local Similarity   50.1%;  Pred. No. 2.3e-08;
  Matches  353;  Conservative    0;  Mismatches  333;  Indels   18;  Gaps    4;

Qy         46 TATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATA 105
Db         55 TATTTAGCAGAAGCTATAGAAAGTATTTTAGATCAGACCTATAATGATTTTGAGTTTATA 114

Qy        106 ATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTT 165
Db        115 ATAGTTGATGATGGTTCTACTGATGAATCTTATAA------CATAATATCTAGCTACGCT 168

Qy        166 GTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTG 225
Db        169 AATAAAGACAACAGAATTATTGTGATTTCAAGAGAACATAGGGGACTTGTCGATTCATTA 228

Qy        226 AACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATT 285
Db        229 AATGAAGGTATAAACATAGCTAGAGGAAAATACATAGCAAGAATGGATGCGGATGATATA 288

Qy        286 TCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCA---TTGGAT 342
Db        289 TCCATTAATAATAGAATCGAAAAACAATTTGAGTTTTTAGAATTAAACAAAGATGTAGAT 348

Qy        343 TTCTCAGCAACTCTAATAGAATTGATAGACCAAAAAG------GAAATTTAGTATATAAA 396
Db        349 ATATTAGGTACTAGAATAGAGGCTTTTGGAGATATAGATGAGAAGCAAAAAACAATTTAT 408

Qy        397 CAACGAGAAAGTAATAAAATATACTTAACTAATGATATACGGAAGATGTTATTGAATAGA 456
Db        409 AATAGTGCATTTTCAATAAAATTTGATTCACAAAATATAGAACAGGTTTTTTAACTTCA 468

Qy        457 TCTATACTTGCCCACCCAACGTGGTGCGTAAAAAAGAAAGTTTTCGATAAGTTAATGGGA 516
Db        469 TGTGCTATACCTCATCCTTCAGTCATGTTTAAAAAGGATAGTATCGTAAAATTAAGAGGA 528

Qy        517 TATAG---AGATTTAGTACCTGTTGAAGATTATGATTTTGCAATAAGAGGAGCTCTGGCT 573
Db        529 TATAGAAAAGAATATGATACTGCAGAGGATTATGATTTGTGGTTAAGGGCTATAAGAAAT 588

Qy        574 GATTTCAAAATCGGCTTACTCAATAAAGTACTTTTACAGTATAGATTAAACGAGAATGGA 633
Db        589 GGATATAAGATAGTGAGAATGGATGAATGCTTAATTAAATATAGGGTTCACAATAAATCT 648

Qy        634 ATATCACAAACCAATAAGTTTAAGCAATATATTTACTCAGCTATTTTACAAGATTTTTAT 693
Db        649 AAAACAGCAGTGGAAATGTTTAATCCTAAGATGGTTGAATATACTATGAAAGCAAAGATA 708

Qy        694 AAAGAAAAATCTTATATTGATATCACAAAAATTACTAATTACTT 737
Db        709 GATTATATAAATGATACCAATAAAAAAGACAAAGTTGATTACTT 752


RESULT 5
US-10-282-122A-15985
; Sequence 15985, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
;  APPLICANT: Wang, Liangsu
;  APPLICANT:  Zamudio, Carlos
;  APPLICANT:  Malone, Cheryl
;  APPLICANT:  Haselbeck, Robert
;  APPLICANT:  Ohlsen, Kari
;  APPLICANT:  Zyskind, Judith
;  APPLICANT:  Wall, Daniel
;  APPLICANT:  Trawick, John
;  APPLICANT:  Carr, Grant
;  APPLICANT:  Yamamoto, Robert
;  APPLICANT:  Forsyth, R.
;  APPLICANT:  Xu, H.
;  TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
;  FILE REFERENCE: ELITRA.034A
;  CURRENT APPLICATION NUMBER: US/10/282,122A
;  CURRENT FILING DATE:  2003-02-20
;  PRIOR APPLICATION NUMBER: 60/191,078
;  PRIOR FILING DATE: 2000-03-21
;  PRIOR APPLICATION NUMBER: 60/206,848
;  PRIOR FILING DATE: 2000-05-23
;  PRIOR APPLICATION NUMBER: 60/207,727
;  PRIOR FILING DATE: 2000-05-26
;  PRIOR APPLICATION NUMBER: 60/230,335
;  PRIOR FILING DATE: 2000-09-06
;  PRIOR APPLICATION NUMBER: 60/230,347
;  PRIOR FILING DATE: 2000-09-09
;  PRIOR APPLICATION NUMBER: 60/242,578
;  PRIOR FILING DATE: 2000-10-23
;  PRIOR APPLICATION NUMBER: 60/253,625
;  PRIOR FILING DATE: 2000-11-27
;  PRIOR APPLICATION NUMBER: 60/257,931
;  PRIOR FILING DATE: 2000-12-22
;  PRIOR APPLICATION NUMBER: 60/267,636
;  PRIOR FILING DATE: 2001-02-09
;  PRIOR APPLICATION NUMBER: 60/269,308
;  PRIOR FILING DATE: 2001-02-16
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 78614
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 15985
;   LENGTH: 1002
;   TYPE: DNA
;   ORGANISM: Clostridium acetobutylicum
US-10-282-122A-15985

  Query Match              8.9%;  Score 84;  DB 12;  Length 1002;
  Best Local Similarity   57.9%;  Pred. No. 2.8e-06;
  Matches  169;  Conservative    0;  Mismatches  120;  Indels    3;  Gaps    1;

Qy         42 AAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTT 101
Db         36 AAAATATTTAGAAGAATCTATAGAAAGCATACTAAAACAAACGTATAGAGATTTTGAATT 95

Qy        102 CATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTC 161
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Db         96 TATTATTGTAAATGATGGTTCAAAT---GATAAATCAATAGATATAATAAATAAATATGC 152

Qy        162 AGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAG 221

Db        153 AAATGACGATAATAGAATAGTTGTAGTATCAAGGGACAACAACATGGGAATGGTGTATTC 212

Qy        222 TTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGA 281

Db        213 TCTAAATGAGGGAATCGATAGAGCAAAAGGAAGTTATGTAGCAAGAATGGATGCGGACGA 272

Qy        282 TATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGAAAAT 333

Db        273 TATAGCTCTTCCTGAAAGGTTTGAAAGACAAATAGAATATCTTAATAAAAAT 324


RESULT 6
US-10-312-841-1/c
; Sequence 1, Application US/10312841
; Publication No. US20030186277A1
; GENERAL INFORMATION:
;  APPLICANT: Epigenomics AG
;  TITLE OF INVENTION: Diagnose von bedeutenden genetischen Parametern innerhalb des MHC
;  FILE REFERENCE: E01/1208/WO
;  CURRENT APPLICATION NUMBER: US/10/312,841
;  CURRENT FILING DATE:  2002-12-30
;  NUMBER OF SEQ ID NOS: 2
; SEQ ID NO 1
;   LENGTH: 3673778
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
;   FEATURE:
;   NAME/KEY: unsure
;   LOCATION: (3294164)
US-10-312-841-1

  Query Match             8.1%;  Score 76.2;  DB 14;  Length 3673778;
  Best Local Similarity   44.6%;  Pred. No. 0.0014;
  Matches  341;  Conservative    0;  Mismatches  423;  Indels    1;  Gaps    1;

Qy         74 TAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTG 133

Db    1715364 TAAAATATACATATAAAATATATATATATAAAATATATATATAAAATATATATATAAAAT 1715305

Qy        134 ATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTA 193

Db    1715304 ATATATATAAAATATATATATAAAATATATATATAAAATATATATATAAAATATATATAT 1715245

Qy        194 ATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAG 253

Db    1715244 AAAATATATATATAAAATATATATATAAAATATATATATATAAAATATATATATAAAATA 1715185

Qy        254 AATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAA 313

Db    1715184 TATATATATAAAATATATATATAAAATATATATATAAAATATATATATAAAATATATATA 1715125

Qy        314 TTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATAGAATTGATAGACC 373

Db    1715124 TAAAATATATATATAAAATATATATATATAAAATATATATATATATAAAATATATATA-T 1715066

Qy        374 AAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATACTTAACTAATGATA 433

Db    1715065 AAAATATATATATATATAAAATATATATATAAAATATATATATATATAAAATATATATAA 1715006

Qy        434 TACGGAAGATGTTATTGAATAGATCTATACTTGCCCACCCAACGTGGTGCGTAAAAAAGA 493

Db    1715005 AATATATATATATATAAAATATATATATATAAAATATATATATAAAATATATATATAC 1714946

Qy        494 AAGTTTTCGATAAGTTAATGGGATATAGAGATTTAGTACCTGTTGAAGATTATGATTTTG 553

Db    1714945 AAAATATATATATACAAAATATATATATAAAATATATATAAAATATATATATAAAATATA 1714886

Qy        554 CAATAAGAGGAGCTCTGGCTGATTTCAAAATCGGCTTACTCAATAAAGTACTTTTACAGT 613

Db    1714885 TATATATAAAATATATATAAAATATATACATATAAAATATATATACTATATATATAAAAT 1714826

Qy        614 ATAGATTAAACGAGAATGGAATATCACAAACCAATAAGTTTAAGCAATATATTTACTCAG 673

Db    1714825 ATAAATAATATATATATAAAATATATATATAAAATATATATAAAATATATATATAAAATA 1714766

Qy        674 CTATTTTACAAGATTTTTATAAAGAAAAATCTTATATTGATATCACAAAAATTACTAATT 733

Db    1714765 TACATATAAAATATATATATAAAATATACATATAAAATATACATATAAAATATACATATA 1714706

Qy        734 ACTTTCAAGAGTATGTGATAAAGAAACGCTATACTCAGCAAGAGCTCTCTAAATATTTTG 793

Db    1714705 AAATATACATATAAAATATACATATAAAATATATATAAAATATATATATAAAATATATAT 1714646

Qy        794 AGCTAAAATCTACCCCTAGTATTACTATTAGAAAACTATATATTT 838

Db    1714645 ATAAAATATATATATATAAAATATATATATAAAATATATATATAT 1714601


RESULT 7
US-10-329-960-1
; Sequence 1, Application US/10329960
; Publication No. US20030099277A1
; GENERAL INFORMATION:
;  APPLICANT: Fleischmann et al.
;  TITLE OF INVENTION: Nucleotide Sequence of the Haemophilus influenzae Rd Genome, Fra
;  TITLE OF INVENTION:  Thereof, and Uses Thereof
;  FILE REFERENCE: PB186P1
;  CURRENT APPLICATION NUMBER: US/10/329,960
;  CURRENT FILING DATE:  2003-01-02
;  PRIOR APPLICATION NUMBER: US 09/643,990
;  PRIOR FILING DATE: 2000-08-23
;  PRIOR APPLICATION NUMBER: US 08/487,429
;  PRIOR FILING DATE: 1995-06-07
;  PRIOR APPLICATION NUMBER: US 08/426,787
;  PRIOR FILING DATE: 1995-04-21
;  NUMBER OF SEQ ID NOS: 1
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
;   LENGTH: 1830121
;   TYPE: DNA
;   ORGANISM: Haemophilus influenzae
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (4747)..(4747)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (9921)..(9921)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (10150)..(10150)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (29298)..(29298)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (36543)..(36543)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (36551)..(36551)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (36636)..(36636)
;   OTHER INFORMATION: n equals a, t, g or c
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; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (40808)..(40810)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (44416)..(44416)
; OTHER INFORMATION: n equals a, t, g or c
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; NAME/KEY: misc_feature
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; NAME/KEY: misc_feature
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; NAME/KEY: misc_feature
; LOCATION: (45593)..(45593)
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; LOCATION: (51602)..(51602)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (51786)..(51786)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (51805)..(51805)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (55369)..(55369)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (65309)..(65309)
; OTHER INFORMATION: n equals a, t, g or c
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; NAME/KEY: misc_feature
; LOCATION: (65313)..(65313)
; OTHER INFORMATION: n equals a, t, g or c
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; LOCATION: (80024)..(80024)
; OTHER INFORMATION: n equals a, t, g or c
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; NAME/KEY: misc_feature
; LOCATION: (100091)..(100091)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (102696)..(102696)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (105121)..(105121)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (107248)..(107248)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (117136)..(117136)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (119750)..(119750)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (119924)..(119924)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (120038)..(120038)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (121344)..(121344)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (122167)..(122167)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (122336)..(122336)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (131340)..(131340)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (131360)..(131360)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (139910)..(139910)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (140398)..(140398)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (142750)..(142750)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (145058)..(145058)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (145171)..(145171)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (145942)..(145942)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (147197)..(147197)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (150841)..(150841)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature

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;   LOCATION: (152500)..(152500)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (152530)..(152530)

  Query Match             7.8%;  Score 73.6;  DB 14;  Length 1830121;
  Best Local Similarity   54.9%;  Pred. No. 0.0034;
  Matches  167;  Conservative    0;  Mismatches  134;  Indels    3;  Gaps    1;

Qy         30 TAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTAC 89
              | || |  ||    | ||| |    ||      |   ||| ||  | ||||| ||   |
Db    1646128 TTATAACGCTGAGCAATATATAGATGAAAGCATTTCATCCATTATTAATCAGACTTATGA 1646187

Qy         90 TGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTT 149
              || | ||  | ||| || ||| ||||  | |||          |||    ||    ||
Db    1646188 AAATCTAGAAATTATAGTTATCAATGATGGTTCAACAGATTTGACTTTGTCTCA---TTT 1646244

Qy        150 AACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGG 209
              |  ||||   ||     |||||| || ||||||||  |   |||| || | ||| | ||
Db    1646245 AGAAGAAATATCTAAATTAGATAAAAGGATAAAAATTATCAGTAATAAATATAATTTAGG 1646304

Qy        210 TTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAAT 269
              ||   |     |||||| | ||   |      || |   ||  ||||| ||   |||||
Db    1646305 GTTCATAAATTCTTTGAATATAGGCCTTGGTTGTTTTTCAGGTAAATATTTTGCAAGAAT 1646364

Qy        270 GGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGA 329
              |||||||||||||||  |  | |||    |  |||| ||   | ||   | | |||||| |
Db    1646365 GGATGCTGATGATATAGCTAAACCATCGTGGATTGAGAAAATAGTTACCTATCTGGAGAA 1646424

Qy        330 AAAT 333
              ||||
Db    1646425 AAAT 1646428


RESULT 8
US-10-329-670-1
; Sequence 1, Application US/10329670
; Publication No. US20040018503A1
; GENERAL INFORMATION:
;  APPLICANT: Fleischmann et al.
;  TITLE OF INVENTION: Nucleotide Sequence of the Haemophilus influenzae Rd Genome, Frag
;  TITLE OF INVENTION:  Thereof, and Uses Thereof
;  FILE REFERENCE: PB186P1
;  CURRENT APPLICATION NUMBER: US/10/329,670
;  CURRENT FILING DATE:  2002-12-24
;  PRIOR APPLICATION NUMBER: US 09/643,990
;  PRIOR FILING DATE: 2000-08-23
;  PRIOR APPLICATION NUMBER: US 08/487,429
;  PRIOR FILING DATE: 1995-06-07
;  PRIOR APPLICATION NUMBER: US 08/426,787
;  PRIOR FILING DATE: 1995-04-21
;  NUMBER OF SEQ ID NOS: 1
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
;   LENGTH: 1830121
;   TYPE: DNA
;   ORGANISM: Haemophilus influenzae
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (4747)..(4747)
;   OTHER INFORMATION: n equals a, t, g or c
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;   NAME/KEY: misc_feature
;   LOCATION: (9921)..(9921)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (10150)..(10150)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (29298)..(29298)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (36543)..(36543)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (36551)..(36551)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (36636)..(36636)
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;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (40808)..(40810)
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;   NAME/KEY: misc_feature
;   LOCATION: (44416)..(44416)
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;   NAME/KEY: misc_feature
;   LOCATION: (44905)..(44905)
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;   LOCATION: (44975)..(44975)
;   OTHER INFORMATION: n equals a, t, g or c
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;   NAME/KEY: misc_feature
;   LOCATION: (45593)..(45593)
;   OTHER INFORMATION: n equals a, t, g or c
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;   NAME/KEY: misc_feature
;   LOCATION: (45732)..(45732)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (47036)..(47036)
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;   NAME/KEY: misc_feature
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;   OTHER INFORMATION: n equals a, t, g or c
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;   NAME/KEY: misc_feature
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;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
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;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (51805)..(51805)
;   OTHER INFORMATION: n equals a, t, g or c
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (55369)..(55369)
;   OTHER INFORMATION: n equals a, t, g or c
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;   NAME/KEY: misc_feature
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;   OTHER INFORMATION: n equals a, t, g or c
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;   NAME/KEY: misc_feature
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;   NAME/KEY: misc_feature
;   LOCATION: (80024)..(80024)
;   OTHER INFORMATION: n equals a, t, g or c
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; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (100091)..(100091)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (102696)..(102696)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (105121)..(105121)
; OTHER INFORMATION: n equals a, t, g or c
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; NAME/KEY: misc_feature
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; OTHER INFORMATION: n equals a, t, g or c
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; NAME/KEY: misc_feature
; LOCATION: (117136)..(117136)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (119750)..(119750)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (119924)..(119924)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (120038)..(120038)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (121344)..(121344)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (122167)..(122167)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (122336)..(122336)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (131340)..(131340)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (131360)..(131360)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (139910)..(139910)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (140398)..(140398)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (142750)..(142750)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (145058)..(145058)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (145171)..(145171)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (145942)..(145942)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (147197)..(147197)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (150841)..(150841)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (152500)..(152500)
; OTHER INFORMATION: n equals a, t, g or c
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (152530)..(152530)

Query Match 7.8%; Score 73.6; DB 15; Length 1830121;
Best Local Similarity 54.9%; Pred. No. 0.0034;
Matches 167; Conservative 0; Mismatches 134; Indels 3; Gaps 1;

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Qy         30 TAATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTAC 89
              | || |  ||    | ||| |    ||     |   ||| ||  | ||||| ||  |
Db    1646128 TTATAACGCTGAGCAATATATAGATGAAAGCATTTCATCCATTATTAATCAGACTTATGA 1646187

Qy         90 TGATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTT 149
                || | ||  | ||| || ||| |||| | |||          |||    ||   ||
Db    1646188 AAATCTAGAAATTATAGTTATCAATGATGGTTCAACAGATTTGACTTTGTCTCA---TTT 1646244

Qy        150 AACAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGG 209
              |  ||||   ||     |||||||| || |||||||| |   |||| || | ||| | ||
Db    1646245 AGAAGAAATATCTAAATTAGATAAAAGGATAAAAATTATCAGTAATAAATATAATTTAGG 1646304

Qy        210 TTTAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAAT 269
              ||   |    ||||| | ||   |      || |   ||  ||||| ||   |||||
Db    1646305 GTTCATAAATTCTTTGAATATAGGCCTTGGTTGTTTTTCAGGTAAATATTTTGCAAGAAT 1646364

Qy        270 GGATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGA 329
              |||||||||||||| | | |||   | |||| ||   | ||   | | ||||| |
Db    1646365 GGATGCTGATGATATAGCTAAACCATCGTGGATTGAGAAAATAGTTACCTATCTGGAGAA 1646424

Qy        330 AAAT 333
              ||||
Db    1646425 AAAT 1646428
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RESULT 9
US-09-816-028A-30
; Sequence 30, Application US/09816028A
; Patent No. US20020042369A1
; GENERAL INFORMATION:
; APPLICANT: Gilbert, Michel
; APPLICANT: Wakarchuk, Warren W.
; APPLICANT: National Research Council of Canada
; TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
; TITLE OF INVENTION: Gangliosides and Ganglioside Mimics
; FILE REFERENCE: 019633-000111US
; CURRENT APPLICATION NUMBER: US/09/816,028A
; CURRENT FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: US 60/118,213
; PRIOR FILING DATE: 1999-02-01
; PRIOR APPLICATION NUMBER: US 09/495,406
; PRIOR FILING DATE: 2000-01-31
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 891
; TYPE: DNA
; ORGANISM: Campylobacter jejuni
; FEATURE:
; NAME/KEY: CDS

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;   LOCATION: (1)..(891)
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-09-816-028A-30

  Query Match             7.8%;  Score 73.2;  DB 9;  Length 891;
  Best Local Similarity   49.1%;  Pred. No. 0.00028;
  Matches  223;  Conservative    0;  Mismatches  228;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
Db          1 ATGTTTAAAATTTCAATCATCTTGCCAACTTATAATGTGGAACAATATATAGCAAGGGCA 60

Qy         61 GTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAAT 120
Db         61 ATAGAAAGTTGTATCAATCAGACTTTTAAAAATATAGA---AATAATTGTAGTTGATGAT 117

Qy        121 CCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATA 180
Db        118 TGTGGAAGTGACAAAAGTATAGATATAGTTAAAGAATATGCCAAAAAAGATGATAGAATA 177

Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
Db        178 AAAATCATACATAATGAAGAAAATTTAAAACTTTTAAGAGCTAGATATGAAGGTGTAAAA 237

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
Db        238 GTAGCAAACTCTCCTTATATAATGTTTTTAGATCCTGATGATTATTTAGAACTTAATGCT 297

Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATA 360
Db        298 TGTGAAGAATGTATGAAAATTTTAAAAAACAATGAAATAGATTTATTATTTTTTAATGCA 357

Qy        361 GAATTGATAGACCAAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATAC 420
Db        358 TTTGTATTGGAAAATAACAATAAAATAGAAAGAAAGTTGAATTTTCAAGAAAAATGTTAT 417

Qy        421 TTAACTAATGATATACGGAAGATGTTATTGAATA 454
Db        418 GTAAAAAAAGATTTTTTAAAAGAACTATTAAAAA 451

RESULT 10
US-10-303-161-30
; Sequence 30, Application US/10303161
; Publication No. US20030148459A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,161
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
;   LENGTH: 891
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)..(891)
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-161-30

  Query Match             7.8%;  Score 73.2;  DB 14;  Length 891;
  Best Local Similarity   49.1%;  Pred. No. 0.00028;
  Matches  223;  Conservative    0;  Mismatches  228;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
Db          1 ATGTTTAAAATTTCAATCATCTTGCCAACTTATAATGTGGAACAATATATAGCAAGGGCA 60

Qy         61 GTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAAT 120
Db         61 ATAGAAAGTTGTATCAATCAGACTTTTAAAAATATAGA---AATAATTGTAGTTGATGAT 117

Qy        121 CCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATA 180
Db        118 TGTGGAAGTGACAAAAGTATAGATATAGTTAAAGAATATGCCAAAAAAGATGATAGAATA 177

Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
Db        178 AAAATCATACATAATGAAGAAAATTTAAAACTTTTAAGAGCTAGATATGAAGGTGTAAAA 237

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
Db        238 GTAGCAAACTCTCCTTATATAATGTTTTTAGATCCTGATGATTATTTAGAACTTAATGCT 297

Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATA 360
Db        298 TGTGAAGAATGTATGAAAATTTTAAAAAACAATGAAATAGATTTATTATTTTTTAATGCA 357

Qy        361 GAATTGATAGACCAAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATAC 420
Db        358 TTTGTATTGGAAAATAACAATAAAATAGAAAGAAAGTTGAATTTTCAAGAAAAATGTTAT 417

Qy        421 TTAACTAATGATATACGGAAGATGTTATTGAATA 454
Db        418 GTAAAAAAAGATTTTTTAAAAGAACTATTAAAAA 451

RESULT 11
US-10-303-118-30
; Sequence 30, Application US/10303118
; Publication No. US20030157655A1
; GENERAL INFORMATION:
;  APPLICANT: Gilbert, Michel
;  APPLICANT:  Wakarchuk, Warren W.
;  APPLICANT:  National Research Council of Canada
;  TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
;  TITLE OF INVENTION:  Gangliosides and Ganglioside Mimics
;  FILE REFERENCE: 019633-000111US
;  CURRENT APPLICATION NUMBER: US/10/303,118
;  CURRENT FILING DATE:  2002-11-21
;  PRIOR APPLICATION NUMBER: US/09/816,028
;  PRIOR FILING DATE: 2001-03-21
;  PRIOR APPLICATION NUMBER: US 60/118,213
;  PRIOR FILING DATE: 1999-02-01
;  PRIOR APPLICATION NUMBER: US 09/495,406
;  PRIOR FILING DATE: 2000-01-31
;  NUMBER OF SEQ ID NOS: 49
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
;   LENGTH: 891
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)..(891)
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-118-30

  Query Match             7.8%;  Score 73.2;  DB 14;  Length 891;
  Best Local Similarity   49.1%;  Pred. No. 0.00028;
  Matches  223;  Conservative    0;  Mismatches  228;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
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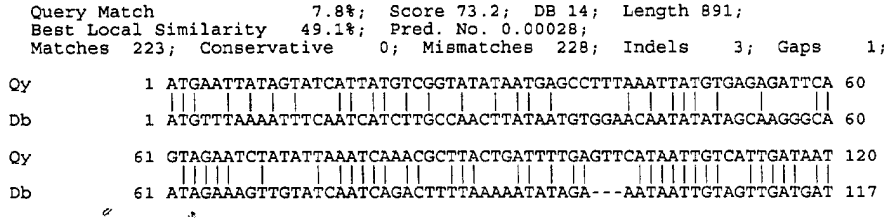
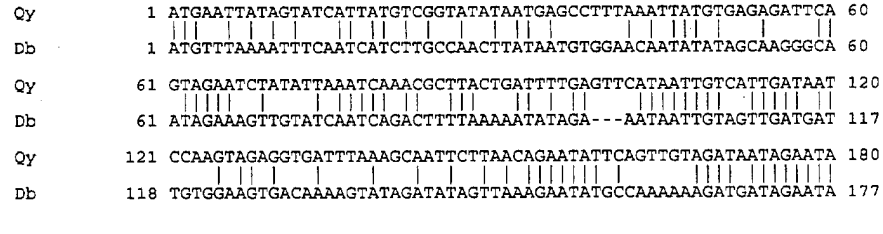
RESULT 12
US-10-303-128-30
; Sequence 30, Application US/10303128
; Publication No. US20030157656A1
; GENERAL INFORMATION:
; APPLICANT: Gilbert, Michel
; APPLICANT: Wakarchuk, Warren W.
; APPLICANT: National Research Council of Canada
; TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
; TITLE OF INVENTION: Gangliosides and Ganglioside Mimics
; FILE REFERENCE: 019633-000111US
; CURRENT APPLICATION NUMBER: US/10/303,128
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US/09/816,028
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: US 60/118,213
; PRIOR FILING DATE: 1999-02-01
; PRIOR APPLICATION NUMBER: US 09/495,406
; PRIOR FILING DATE: 2000-01-31
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 891
; TYPE: DNA
; ORGANISM: Campylobacter jejuni
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(891)
; OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-128-30

Query Match 7.8%; Score 73.2; DB 14; Length 891;
Best Local Similarity 49.1%; Pred. No. 0.00028;
Matches 223; Conservative 0; Mismatches 228; Indels 3; Gaps 1;



RESULT 13
US-10-303-134-30
; Sequence 30, Application US/10303134
; Publication No. US20030157657A1
; GENERAL INFORMATION:
; APPLICANT: Gilbert, Michel
; APPLICANT: Wakarchuk, Warren W.
; APPLICANT: National Research Council of Canada
; TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
; TITLE OF INVENTION: Gangliosides and Ganglioside Mimics
; FILE REFERENCE: 019633-000111US
; CURRENT APPLICATION NUMBER: US/10/303,134
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US/09/816,028
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: US 60/118,213
; PRIOR FILING DATE: 1999-02-01
; PRIOR APPLICATION NUMBER: US 09/495,406
; PRIOR FILING DATE: 2000-01-31
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 891
; TYPE: DNA
; ORGANISM: Campylobacter jejuni
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(891)
; OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-134-30

Query Match 7.8%; Score 73.2; DB 14; Length 891;
Best Local Similarity 49.1%; Pred. No. 0.00028;
Matches 223; Conservative 0; Mismatches 228; Indels 3; Gaps 1;



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Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
              ||||| | | |||||||||||| |        |   |  |   |    |   ||| || |||
Db        178 AAAATCATACATAATGAAGAAAATTTAAAACTTTTAAGAGCTAGATATGAAGGTGTAAAA 237

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
                | | ||          ||||| |        | ||| |||||||| || | | |  |
Db        238 GTAGCAAACTCTCCTTATATAATGTTTTTAGATCCTGATGATTATTTAGAACTTAATGCT 297

Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATA 360
               | |||  |    ||        || |  |  | |||  | | ||||| | |    |    |
Db        298 TGTGAAGAATGTATGAAAATTTTAAAAAACAATGAAATAGATTTATTATTTTTAATGCA 357

Qy        361 GAATTGATAGACCAAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATAC 420
                  | | || | ||    || |||  |  ||                 | |||  ||
Db        358 TTTGTATTGGAAAATAACAATAAAATAGAAAGAAAGTTGAATTTTCAAGAAAAATGTTAT 417

Qy        421 TTAACTAATGATATACGGAAGATGTTATTGAATA 454
                |||  || |||  |    ||     |||| || |
Db        418 GTAAAAAAAGATTTTTTAAAAGAACTATTAAAAA 451
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RESULT 14
US-10-303-162-30
; Sequence 30, Application US/10303162
; Publication No. US20030157658A1
; GENERAL INFORMATION:
; APPLICANT: Gilbert, Michel
; APPLICANT: Wakarchuk, Warren W.
; APPLICANT: National Research Council of Canada
; TITLE OF INVENTION: Campylobacter Glycosyltransferases for Biosynthesis of
; TITLE OF INVENTION: Gangliosides and Ganglioside Mimics
; FILE REFERENCE: 019633-000111US
; CURRENT APPLICATION NUMBER: US/10/303,162
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US/09/816,028
; PRIOR FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: US 60/118,213
; PRIOR FILING DATE: 1999-02-01
; PRIOR APPLICATION NUMBER: US 09/495,406
; PRIOR FILING DATE: 2000-01-31
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
;   LENGTH: 891
;   TYPE: DNA
;   ORGANISM: Campylobacter jejuni
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)..(891)
;   OTHER INFORMATION: beta-1,3 galactosyl transferase from C. jejuni O:10
US-10-303-162-30

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  Query Match             7.8%;  Score 73.2;  DB 14;  Length 891;
  Best Local Similarity   49.1%;  Pred. No. 0.00028;
  Matches  223;  Conservative    0;  Mismatches  228;  Indels    3;  Gaps    1;

Qy          1 ATGAATTATAGTATCATTATGTCGGTATATAATGAGCCTTTAAATTATGTGAGAGATTCA 60
              |||  | | | |     || || | |   |  | | ||     | |   |      |     ||
Db          1 ATGTTTAAAATTTCAATCATCTTGCCAACTTATAATGTGGAACAATATATAGCAAGGGCA 60

Qy         61 GTAGAATCTATATTAAATCAAACGCTTACTGATTTTGAGTTCATAATTGTCATTGATAAT 120
                 |||||  |     | ||||| || |||  |||   || | ||    |||||||  ||||| ||
Db         61 ATAGAAAGTTGTATCAATCAGACTTTTAAAAATATAGA---AATAATTGTAGTTGATGAT 117

Qy        121 CCAAGTAGAGGTGATTTAAAGCAATTCTTAACAGAATATTCAGTTGTAGATAATAGAATA 180
                    | || |   |    |    |   |   |  | | ||||||| |       |||| ||||||||
Db        118 TGTGGAAGTGACAAAAGTATAGATATAGTTAAAGAATATGCCAAAAAAGATGATAGAATA 177

Qy        181 AAAATCTTGCTTAATGAAGAAAATATTGGTTTAGCATCAAGTTTGAACAAAGCGGTGAAA 240
              ||||| | | |||||||||||| |        |   |  |   |    |   ||| || |||
Db        178 AAAATCATACATAATGAAGAAAATTTAAAACTTTTAAGAGCTAGATATGAAGGTGTAAAA 237

Qy        241 ATTTCTAAGGGAGAATATATTTTTAGAATGGATGCTGATGATATTTCATATCCAAGTAGA 300
                | | ||          ||||| |        | ||| |||||||| || | | |  |
Db        238 GTAGCAAACTCTCCTTATATAATGTTTTTAGATCCTGATGATTATTTAGAACTTAATGCT 297

Qy        301 TTTGATAAGCAAATTCGTTTTATGGAGGAAAATTCATTGGATTTCTCAGCAACTCTAATA 360
               | |||  |    ||        || |  |  | |||  | | ||||| | |    |    |
Db        298 TGTGAAGAATGTATGAAAATTTTAAAAAACAATGAAATAGATTTATTATTTTTAATGCA 357

Qy        361 GAATTGATAGACCAAAAAGGAAATTTAGTATATAAACAACGAGAAAGTAATAAAATATAC 420
                  | | || | ||    || |||  |  ||                 | |||  ||
Db        358 TTTGTATTGGAAAATAACAATAAAATAGAAAGAAAGTTGAATTTTCAAGAAAAATGTTAT 417

Qy        421 TTAACTAATGATATACGGAAGATGTTATTGAATA 454
                |||  || |||  |    ||     |||| || |
Db        418 GTAAAAAAAGATTTTTTAAAAGAACTATTAAAAA 451
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RESULT 15
US-10-282-122A-17153
; Sequence 17153, Application US/10282122A
; Publication No. US20040029129A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Liangsu
; APPLICANT: Zamudio, Carlos
; APPLICANT: Malone, Cheryl
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Kari
; APPLICANT: Zyskind, Judith
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John
; APPLICANT: Carr, Grant
; APPLICANT: Yamamoto, Robert
; APPLICANT: Forsyth, R.
; APPLICANT: Xu, H.
; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
; FILE REFERENCE: ELITRA.034A
; CURRENT APPLICATION NUMBER: US/10/282,122A
; CURRENT FILING DATE: 2003-02-20
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/230,335
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: 60/230,347
; PRIOR FILING DATE: 2000-09-09
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17153
;   LENGTH: 747
;   TYPE: DNA
;   ORGANISM: Clostridium difficile
US-10-282-122A-17153

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  Query Match             7.6%;  Score 71.6;  DB 12;  Length 747;
  Best Local Similarity   51.3%;  Pred. No. 0.00053;
  Matches  192;  Conservative    0;  Mismatches  179;  Indels    3;  Gaps    1;

Qy         32 ATGAGCCTTTAAATTATGTGAGAGATTCAGTAGAATCTATATTAAATCAAACGCTTACTG 91
              || |  ||  |||  |  |  |   ||    |   | || ||||  ||||||| |||||     |   |
Db         38 ATAATTCTGAAAAATTTATTGAAGCAACCATAAAATCAGTATTAAACCAAACTTATCAAG 97
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Qy      92 ATTTTGAGTTCATAATTGTCATTGATAATCCAAGTAGAGGTGATTTAAAGCAATTCTTAA 151
Db      98 AATGGGAAATGTTAATT---ATTGATGATTGCTCAACAGATAATAGTCCTAATATAGTCA 154

Qy     152 CAGAATATTCAGTTGTAGATAATAGAATAAAAATCTTGCTTAATGAAGAAAATATTGGTT 211
Db     155 AATCTTATATGCAACAGGATAGTAGAATAAAATGTATAAAGACTGAGACTAATAAGGGTG 214

Qy     212 TAGCATCAAGTTTGAACAAAGCGGTGAAAATTTCTAAGGGAGAATATATTTTTAGAATGG 271
Db     215 TCTCTAATGCTAGAAATTTAGCACTAAGTAAGGCAACAGGACAATTTATAGCTTTTTTAG 274

Qy     272 ATGCTGATGATATTTCATATCCAAGTAGATTTGATAAGCAAATTCGTTTTATGGAGGAAA 331
Db     275 ATAGTGATGACCAATGGAATAGTAGTAAGTTAGAAAAACAAGTAAATTTTATGTTAGAAA 334

Qy     332 ATTCATTGGATTTCTCAGCAACTCTAATAGAATTGATAGACCAAAAAGGAAATTTAGTAT 391
Db     335 ATGACTATGTAATTTCATTTACTTCATATGAACTGATGGATGAAAATGATAAAAAATTAA 394

Qy     392 ATAAACAACGAGAA 405
Db     395 ACAAAGTAATAAAA 408
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